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Perpetration of Severe Intimate Partner Violence: Premilitary and Second Year of Service Rates

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A longitudinal design was used to compare rates of severe intimate partner violence (SIPV) perpetration during the year before enlistment and the second year of service in a sample of 542 female and 421 male Navy personnel. Overall, 11% reported perpetration of SIPV during the year before service. Premilitary SIPV perpetration rates were significantly higher for women (20%) than for men (4%). After 2 years of service, the overall percentage reporting past-year perpetration of SIPV increased slightly (14%, compared with a premilitary rate of 11%). The patterns of changes in rates of SIPV perpetration varied for men and women. Across time, SIPV perpetration increased among men (from 4% to 16%) and decreased among women (from 20% to 12%). Respondents who were female, younger, and minority reported higher rates of premilitary SIPV perpetration. No demographic factors were associated with reports of SIPV perpetration during the second year.

Introduction

espite concerns that military populations may evidence high rates of intimate partner violence (IPV) perpetration, surprisingly few empirical investigations of this issue have been conducted. To further our understanding in this area, Heyman and Neidig compared rates of male-to-female moderate IPV and severe IPV (SIPV) as reported by a representative sample of married individuals enlisted in the Army and a random sample of married employed individuals from the general population. After controlling for demographic factors associated with higher rates of male-to-female IPV (i.e., age and race), the rate of maleto-female SIPV was found to be only 2% to 3% higher among Army vs. civilian respondents. As those authors point out, although absolute rates of male-to-female IPV in military settings may appear to be higher than rates found in the general population, closer examination reveals that these differences reflect to some degree the overrepresentation in military settings of segments of the population most at risk for IPV (e.g., younger and minority individuals).

Although additional research is needed, results reported by Heyman and Neidig¹ indicate that, after controlling for age and race, rates of male-to-female SIPV are slightly higher among Army versus civilian married couples. As those authors note, to the extent that there are higher rates of SIPV perpetration in

military populations, a number of explanations are possible. One possibility is that individuals who elect to enter military services, compared with their civilian counterparts, present with higher rates of SIPV at the time of enlistment. To examine this possibility, data describing premilitary rates of perpetration of SIPV are needed. Another possibility is that elevated SIPV perpetration rates in military settings may be a product of the military environment. According to this explanation, the experience of living and working in a military setting would be expected to be associated with increased rates of SIPV perpetration, above rates of SIPV perpetration that occur outside the military setting.

The present study used a longitudinal design to assess SIPV perpetration reported by a sample of Navy personnel during two time frames. Respondents were asked to report their perpetration of SIPV that occurred during the year before basic training (assessed at basic training) and during the second year of military service (assessed after completion of 2 years of service). The present study sought to obtain descriptive data on premilitary rates of self-reported SIPV perpetration and examined whether rates of SIPV perpetration were higher (relative to premilitary rates) during the second year of service in the Navy. Although previous investigations tended to focus only on male-to-female violence within married couples, the present study included any perpetration of SIPV perpetrated by either male or female Navy personnel. In the present sample of young, predominantly unmarried adults, based on previous research, 2-4 it was expected that being female, younger, minority, of lower socioeconomic status, and married would be associated with higher rates of self-reported SIPV perpetration at both time 1 (premilitary) and time 2 (during the second year of service).

Methods

Participants

Potential participants were incoming Navy recruits at the Recruit Training Center at Great Lakes, Illinois, who voluntarily completed a set of survey instruments. Overall, 96% of men and women invited to participate did so; across groups of participants, participation rates ranged from 59% to 100%. The initial study sample in the longitudinal component of the project included 2,573 women and 2,925 men. Respondents were invited to voluntarily complete assessments again after 6 months, 1 year, and 2 years of service. The present study focuses on 963 respondents (542 women and 421 men) with complete data from their initial assessment (i.e., collected during basic training) and the 2-year follow-up assessment.

Demographic characteristics of the sample are provided in Table I. Participants ranged in age from 17 to 35 years (mean,

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TABLE I

DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

		Distribution (%)			
Characteristic	Men Women Overal				
Age at time 1 (years)					
17–18	41	44	43		
19-20	34	32	33		
21-23	14	15	15		
24-26	5	6	5		
27-29	4	2	3		
30-35	2	1	1		
Ethnicity					
Caucasian	57	56	57		
African American	14	24	19		
Hispanic	15	11	13		
Other	14	9	11		
Marital status					
Single	91	87	89		
Married or cohabiting	8	11	10		
Other	1	2	1		
Family income					
<\$25,000	37	41	38		
\$25,000-\$50,000	34	38	36		
>\$50,000	29	21	25		
Education					
Less than high school	4	4	4		
High school or general equivalency diploma	87	86	87		
Some college	9	10	9		

19.81 years; SD, 2.79 years). Most participants (87%) had earned a high school degree or the equivalent and most (89%) were single. With regard to ethnicity, 57% were Caucasian, 19% African American, 13% Hispanic, and 11% other.

To examine whether those who completed both surveys systematically differed from those who completed only the initial survey, we compared the two groups in rates of SIPV perpetration and in five demographic variables (age, ethnicity, education, family income, and marital status). The only significant difference between the groups was in family income [$\chi^2(2) = 6.11$, n = 5,352, p < 0.05], and this effect was small ($\phi' = 0.03$). Those who did not participate in the follow-up assessment were more likely than those who did to have high family incomes (27% vs. 25%) or moderate incomes (38% vs. 36%) and were less likely to have low family incomes (35% vs. 39%).

Test Instrument: Conflict Tactics Scale

SIPV perpetration was assessed using the intimate partner version of the Conflict Tactics Scale (CTS) (Form A,⁵ p 87). The CTS is a self-report survey instrument designed to assess behaviors used to resolve conflicts in relationships (evidence supporting the reliability and validity of the CTS has been reported^{6,7}). Items on the CTS may be grouped to create subscales representing three different types of tactics for resolving conflict, i.e., physical aggression, verbal aggression, and reasoning. The physical aggression items can be subdivided into those reflecting minor or severe forms of physical aggression. To assess SIPV perpetration, respondents were asked to indicate how frequently in the past year they had used each of 18 different conflict resolution techniques with a romantic partner (where romantic partner was defined as a person the respondent was

dating, seeing, going steady with, or married to). All ratings were made on a 5-point scale (0, 1, 2-5, 6-10, or >10).

Of the 18 CTS items, only the 5 items on the severe physical violence scale were used in the present study. These items asked whether the respondent had "hit (or tried to hit) the other person, but not with anything," "hit (or tried to hit) the other person with something hard," "kicked, bit, or hit with a fist," "beat the other person up," or "threatened the other person with a knife or gun." Respondents who reported having engaged in any behavior on the severe physical violence subscale were classified as having perpetrated SIPV.

Procedure

The data examined in the present study were collected as part of a more extensive survey offered to Navy recruits during their first week in basic training between June 1996 and June 1997. Nonmilitary personnel of the same gender as participants administered the survey to groups of male or female recruits. Participation was voluntary. Before agreeing to participate, recruits were provided with a description of the study, a Privacy Act Statement, and an informed consent form describing their rights as participants, including the right to "leave blank any section or questions" and to "stop at any time before completing the survey." Because they were recruited for participation in a longitudinal study, respondents in the present study were asked to provide identifying information, and they were informed that their responses would be completely confidential but not anonymous. Two-year follow-up surveys were distributed and collected via U.S. mail.

Results

Premilitary SIPV Perpetration Rates

Overall, 11% of respondents reported perpetrating SIPV during the year before their entry into the military. Self-reported premilitary perpetration of SIPV was significantly greater among women (20%) than among men (4%) [χ^2 (1) = 43.99, n = 963, p < 0.001, ϕ' = 0.21].

Second-Year SIPV Perpetration Rates

Fourteen percent of respondents reported perpetrating SIPV during their second year of service in the Navy. Rates of self-reported SIPV perpetration during the second year in the military did not vary as a function of gender [$\chi^2(1) = 2.23$, n = 963, p > 0.10]. Although a trend was noted, the increase in past-year SIPV perpetration rates (i.e., from 11% premilitary to 14% during the second year of service) was not significant [McNemar change test, $\chi^2(1) = 3.43$, n = 963, p < 0.07]. Patterns of change in SIPV over time differed for men and women (Fig. 1). Among men, rates of SIPV perpetration significantly increased over time, from 4% to 16% [McNemar change test, $\chi^2(1) = 32.51$, n = 421, p < 0.001]. In contrast, among women, rates of SIPV perpetration significantly decreased over time, from 20% to 12% [McNemar change test, $\chi^2(1) = 4.92$, n = 542, p < 0.05].

Age and SIPV Perpetration

We next examined whether age was systematically associated with rates of SIPV perpetration. Because our previous analyses indicated different patterns of IPV perpetration for men and

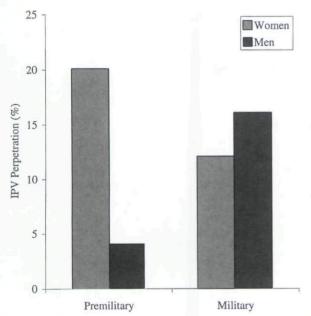


Fig. 1. Premilitary and second-year SIPV perpetration rates, as reported by women and men.

women, these analyses were computed separately for each group. Correlational analysis indicated that age was significantly associated with premilitary SIPV for men (r = 0.12, n =421, p < 0.05) but not for women (r = 0.03, n = 542, not significant). To explore the possibility of a nonlinear relationship between age and SIPV, χ^2 tests of association were conducted. Past-year prevalence of perpetration of SIPV for women and men is presented in Figure 2. As can be seen in Figure 2, for men, reported rates of SIPV perpetration increased with age among cohorts between 17 and 29 years of age and declined among men ≥30 years of age. As in the correlational analysis, this analysis revealed a significant association for men $[\chi^2(5)]$ = 15.63, n = 421, p < 0.01]. Although women also showed a decline in reported SIPV perpetration beginning at age 30, they manifested a less pronounced increase in rates of SIPV from ages 17 to 29, and the association between age and SIPV was not significant $[\chi^2(5) = 4.29, n = 542, \text{ not significant}]$. However, a log-linear analysis revealed that the association between age and SIPV did not significantly differ for men and women $\chi^2(5) =$ 9.11, n = 963, p > 0.10].

At time 2, age was not related to SIPV perpetration for either men [$\chi^2(5) = 6.47$, n = 421, p > 0.25] or women [$\chi^2(5) = 7.47$, n = 543, p > 0.18]. Log-linear analysis confirmed that age was unrelated to SIPV perpetration at time 2 [$\chi^2(5) = 8.30$, n = 963, p > 0.14]. Moreover, this analysis revealed that there was no difference in the association between SIPV perpetration and age group as a function of gender [$\chi^2(5) = 8.72$, n = 963, p > 0.12].

Ethnicity and SIPV Perpetration

Ethnicity was significantly associated with self-reported rates of SIPV perpetration at time 1 for both men [$\chi^2(2) = 9.51$, n = 359, p < 0.01] and women [$\chi^2(2) = 20.01$, n = 476, p < 0.001]. However, the pattern was somewhat different for men and women. Pairwise comparisons between ethnic groups were conducted using additional χ^2 tests of association. Among men, Hispanic subjects (10%) were significantly more likely to report

SIPV than were Caucasian subjects (2%) [$\chi^2(1) = 9.82$. n = 353, p < 0.01]. African American subjects reported an intermediate level of SIPV (5%) that did not significantly differ from that for either of the other two ethnic groups ($\chi^2 \leq 2.48$, p > 0.11). Among women, African American subjects (29%) reported significantly higher rates of SIPV than did either Caucasian subjects (13%) or Hispanic subjects (8%) ($\chi^2 \geq 10.17$, p < 0.01). The rates of SIPV reported by Caucasian and Hispanic subjects did not differ [$\chi^2(1) = 1.00$, n = 353, not significant]. At time 2, SIPV perpetration was unrelated to ethnicity for both men [$\chi^2(2) = 0.83$, n = 359, p > 0.65] and women [$\chi^2(2) = 4.03$, n = 476, p > 0.13].

Other Demographic Factors and SIPV Perpetration

We also examined the associations of family income, education level, and marital status with past-year perpetration of SIPV. None of these associations was statistically significant (p > 0.05) at either time 1 or time 2.

Discussion

Overall, 11% of respondents reported perpetrating SIPV during the year before their entry into the military. Consistent with previous research.² premilitary rates of self-reported SIPV were higher among women (20%), compared with men (4%). Although the present study lacked a general-population comparison group, studies examining perpetration of SIPV among young adults in the general population are available. For example, data from the National Youth Survey (NYS), a longitudinal study of a national probability sample of men and women in the United States, found that self-reported past-year rates of SIPV (based on CTS responses) among married or cohabitating individuals (18-24 years of age) were 22.7% for women and 7.4% for men.8 Comparison of the present findings and the NYS rates should be made with caution because the NYS rates are based on only those respondents who were married or cohabitating. It should be noted, however, that in the present study marital status was unrelated to SIPV rates, indicating that rates of SIPV did not vary with marital status in the present sample. To the extent that these rates can be compared, the rates of premilitary perpetration of SIPV reported by our Navy sample appear comparable for women and slightly lower for men, in comparison with same-age cohorts in the NYS general-population sample. Therefore, the present data do not support the notion that individuals entering the military, compared with their civilian counterparts, present with high rates of SIPV at the time of enlistment.

The present study revealed that rates of self-reported SIPV perpetration were slightly higher during the second year of enlistment compared with the premilitary rates. Importantly, the patterns of changes in rates of self-reported SIPV perpetration varied significantly for men and women in this sample. More specifically, rates of self-reported SIPV increased significantly among men (from 4% to 16%) but decreased significantly among women (20% to 12%).

One possible explanation for these changes across time is that differences in SIPV rates from time 1 to time 2 might be a function of naturally occurring changes associated with the maturation of participants. Age-related changes in SIPV rates have been demonstrated consistently in previous research.³

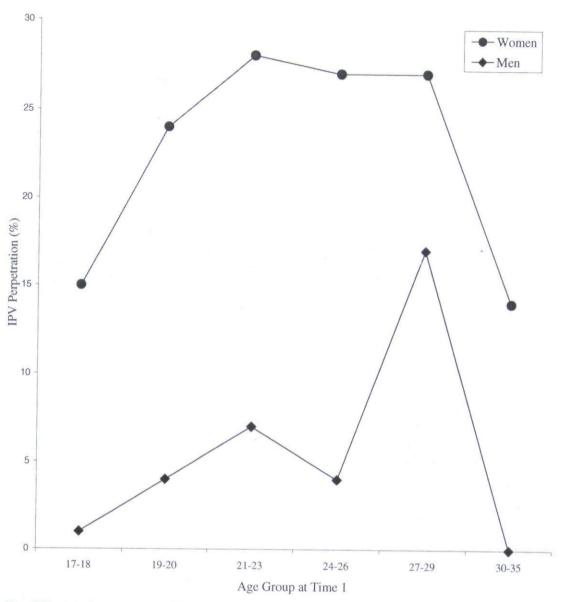


Fig. 2. Premilitary SIPV perpetration rates, as reported by women and men across age categories.

Age-related changes in SIPV rates also are suggested by our findings indicating that premilitary rates of self-reported SIPV among men (and to some extent among women) increased considerably across age cohorts from the late teens through the late 20s and then decreased dramatically among men and women ≥30 years of age. It is noteworthy that, in the present sample. >90% of respondents were <24 years of age at time 1, which suggests that the rates of SIPV perpetration would be higher at time 2 as a function of age-related changes. Consistent with the expectation of a maturational effect, rates of self-reported premilitary SIPV perpetration increased across time among men. However, rates of SIPV perpetration during the second year of service were not significantly associated with age. The fact that age was unrelated to SIPV perpetration at time 2 undermines the possibility that maturational factors explained the changes in SIPV perpetration rates noted across time among men in this sample. Furthermore, age does not appear to be a plausible

explanation for the decrease in rates of SIPV perpetration from time 1 to time 2 observed for women. Based on the available data, the role of maturational factors in explaining the changes in SIPV perpetration noted among men and women in our sample remains unclear.

Consistent with previous research, ^{2,3,6} gender, age, and ethnicity were each associated with premilitary rates of self-reported SIPV perpetration. It is noteworthy, however, that none of the demographic factors examined was associated with self-reported SIPV perpetration during the second year of military service. Therefore, the associations between demographic factors and SIPV perpetration appear to be diminished in Navy vs. nonmilitary environments. Conceptually, demographic factors associated with SIPV perpetration are considered marker variables for the presence/absence of causal risk factors associated with SIPV. One possible interpretation of this pattern of findings is that there is a homogenization of experience across individu-

als during the first 2 years of service, such that individual characteristics such as demographic factors are less predictive of variations in experience or environment.

Furthermore, to the extent that the cultural context in military settings differs from that in civilian settings, these differences may serve to moderate the associations between demographic factors and SIPV perpetration. Although cross-cultural data on SIPV perpetration are limited, numerous characteristics of a culture (e.g., levels of equity across genders and prohibitions against violence) have been implicated in influencing patterns and rates of SIPV perpetration (see Ref. 2 for additional discussion). For example, it has been suggested that high rates of male-to-female violence, but low rates of female-to-male violence, are likely in cultures in which there are strong patriarchal systems and values.² In contrast, high rates of female-to-male violence, but low rates of male-to-female violence, are expected in cultures characterized by prohibitions against male-to-female violence and gender equity in interpersonal and economic domains. Additional research is needed to explore the factors associated with the first 2 years of experience in the Navy that may be relevant in understanding the patterns of changes in SIPV perpetration noted among men and women in this sample.

An unanswered question in the present study is how the increases in male-to-female SIPV across time noted in this sample of Navy personnel compare with the age-related increases that would be expected in a matched civilian population sample. For example, it remains possible that SIPV perpetration increases more or less dramatically among men serving in the Navy compared with the age-related changes in civilian populations. Findings from the present study would be strengthened by data on age-related changes in SIPV across the same 2-year time period for matched Navy and civilian samples. Unfortunately, no such comparison data were available in the present study.

Other limitations of this study should be noted. Loss of participants across time (an unavoidable issue in longitudinal research) limits the generalizability of the present findings. Although this is an important concern, it is noteworthy that our attrition analyses revealed that those who completed both the initial and 2-year follow-up surveys and those who completed only the initial survey were similar in terms of premilitary self-reported SIPV perpetration and all except one (i.e., family income) of the demographic variables. Also, reliance on self-reported SIVP perpetration is another obvious study limitation, although alternative methods of discerning SIPV perpetration (e.g., police records) are not free of limitations (e.g., underdetection).

Despite these limitations, the present study, using a longitudinal design and standardized assessment procedures, found that rates of SIPV perpetration increased significantly among men and decreased among women across their first 2 years of service in the Navy. The importance of preventative interventions targeting SIPV has been argued by others,9 and the present findings (i.e., significant increases in SIPV perpetration rates across time among enlisted men) underscore the opportunity for prevention of SIPV that occurs during the transition into the Navy. As previously noted, additional research comparing Navy and civilian populations with regard to changes in patterns and rates of SIPV across time is needed. Furthermore, additional research designed to provide a more refined description of subgroups of individuals (e.g., those who first initiate SIPV during service, those who continue premilitary patterns of SIPV, and those who cease to perpetrate SIPV during service) may provide insights into the factors that influence changes in patterns of SIPV perpetration. Also, research exploring the proximal and causal factors associated with starting, continuing, and stopping SIPV perpetration during service in the Navy may help inform prevention and intervention efforts designed to reduce the risk of SIPV perpetration among personnel in the Navy.

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